

Memorandum

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FROM: Melissa Kozakiewicz, Office of Innovation Director

TO: Mayor Steven Fulop
Business Administrator Platt
DPW Director Allison Solowsky
HHS Director Stacey Flanagan
Recycling Coordinator Sonia Dublin
Sustainability Director Kate Lawrence

RE: 2019 Waste Management Projects

Overview

In 2019, the Office of Innovation collaborated with a number of City departments to implement several waste management pilot projects. This memorandum describes those efforts and discusses prospects for further action to improve waste management in Jersey City, including operational actions, community outreach, and policy changes.

Office of Innovation Waste Management Background Research

The Office of Innovation's work on waste management included a review of prior work in Jersey City and best practices for municipal waste management. In Jersey City, the Department of Health and Human Services launched a pilot project in 2017 that involved setting up compost drop-off locations at area farmer's markets. This program was under-utilized due, in part, to community engagement, highlighting the need for a robust communication and awareness campaigns¹. Further, after a review of existing recycling data², the Office concluded that the City has additional opportunities to increase recycling rates, wherein this increase of reported recyclables (including food waste) will raise revenues and/or lower tipping fees.

In addition, a review of initiatives in other cities yielded the following policy/procedural options:

- *Zero waste initiative*

Under a zero waste initiative, the City would commit to a mixture of policies to reach a "zero-waste" goal. "Zero waste" does not have a common definition, but refers to minimizing the amount of waste going into landfills through reuse, recycling, composting, or

¹ Director Flanagan can provide additional context and data regarding her leadership and experiences in this program.

² Ms. Dublin can provide additional data on municipal recycling rates and statewide reporting mandates.

reductions in consumption. A number of local governments, including Los Angeles, CA; Kings County, WA; and Boulder, CO, have adopted zero-waste targets and implemented policies to reach those targets.

- *Curbside compost pickup*

Under a curbside pickup program, the City would provide or instruct residents to procure marked composting bins. The City would then pick-up compostable material on a regular schedule and deliver it to a processing facility in the same manner as recycling. While expensive, this option could greatly increase composting given adequate outreach support. However, a lack of processing facilities prevent this from actualizing at present.

- *Large scale building pickup*

In addition, the City could work with large housing complexes, including Jersey City Housing Authority properties, to provide composting pickup services to the residents of these complexes. This option would reduce the cost and implementation difficulties associated with citywide curbside pickup.

- *In-vessel composting*

In an in-vessel composting system, food waste is processed into useable material on-site using a sealed machine. The City could implement in-vessel composting programs by installing these machines in specific, high-waste locations.

Note: The City is currently preparing a bid spec to pilot this option.

- *Compost drop-offs*

As opposed to a pick-up model, the City could set up drop-off locations in easily accessible areas where residents would drop their food waste off. Drop-off locations are easy and practical to set up, but rely on collections teams (either internal or through partnerships), as well resident motivation to bring kitchen scraps to the location, and outreach and marketing to reach adequate utilization.

Note: This model is currently being used in the City's community garden composting pilot and yielded 9,948 lbs. as of 10/16/19.

- *Backyard composting*

The City could train residents through workshops on how to compost waste on their own properties for use in personal gardens. They were also provided backyard bins and scales to weigh their scraps.

Note: This model is currently being used in the City's backyard composting pilot and yielded 1168 lbs. as of 10/16/19.

- *Commercial waste policy*

Currently, the City does not manage commercial waste. Commercial waste pickup is negotiated independently through private contractors. Regulation on commercial waste is consequently limited. The City could pass regulation to require or encourage commercial waste generators to compost food waste if the statewide infrastructure provided the necessary processing facilities.

Evaluation of Initiatives

This section will describe 2019 waste management pilot programs and provide an evaluation of the policy options described above, as well as offer future options.

An overarching issue for all composting initiatives is the limited availability of nearby food waste processing facilities. This increases expenses, implementation difficulties, and carbon footprint for hauling compostable material to processing facilities. It also increases burdens on community gardens serving as drop-off points which process compostable material on-site. However, it is likely that changes at the State level will improve composting infrastructure in the near future.

In addition, the high degree of interdepartmental coordination required for comprehensive waste management initiatives, combined with institutional inertia, has made aggressive action difficult. Further, there is an overall lack of awareness about the importance of sustainable waste disposal, as evidenced by the City's low recycling diversion rate. Finally, perceptions of odor or pest problems may make residents less willing to consider composting.

- *Zero waste initiative*

The City could benefit from the implementation of a comprehensive zero-waste plan. However, such a policy would require high levels of cross-department coordination and buy in, making such a policy premature at present. Moving forward, as interdepartmental coordination improves, the City should consider lower waste targets and more sustainable waste policies.

- *Curbside & large building pickup*

At present, the City lacks capacity to implement effective curbside pickup, and is limited by the lack of nearby food waste processing facilities. Exploring this option further will require greater coordination among key departments and momentum behind waste management changes.

- *In-vessel composting – IN PROCESS*

The Office of Innovation is working with the Department of Public Works to procure an in-vessel composting system. This machine will serve as a pilot for in-vessel composting efforts, which could alleviate difficulties produced by the poor availability of off-site processing facilities. In-vessel systems produce nutrient rich material that can be added as a soil amendment for landscaping and gardening purposes. The reduction in overall food waste will allow savings in waste processing fees even in the unlikely event that compost is not used.

- *Compost drop-offs - PILOTING*

Throughout 2019, the City installed three compost drop-off locations (Mandela Lot, 447 MLK Dr.; Brunswick Community Garden, 174 Brunswick St; Riverview Farmers' Market, Palisade Ave btw. Bowers & Griffith) for use at four community gardens across Jersey City. Composting of food waste is done at community gardens, reducing impacts of hauling food waste or necessity for an off-site composting facility. Going forward, the City could expand this program to include additional drop-off locations to expand utilization.

- *Backyard composting - PILOTING*

The City enrolled over 200 residents in its backyard composting program, which provided materials and guidance so residents could compost in their own backyards. This program, combined with greater marketing and outreach incentives, could be expanded moving forward to include a neighborhood level mentorship program and/or cohort style initiation.

- *Commercial waste policy*

The City has not rigorously explored a policy to reduce commercial food waste and enhance recycling compliance. However, the City could explore leveling a tax on high volume commercial waste disposal, mandatory food waste disposal requirements, or an incentive program to improve recycling compliance and composting opportunities for commercial waste in Jersey City.

Data Collection

As a way to measure success, the Office of Innovation has built a tracker to collect composting data. These data was self-reported in the case of the backyard program using the following digital form (<https://www.cognitofrms.com/CityOfJerseyCity1/WeeklyCompostCollectionForm>) and collected by garden managers in the case of the community garden program using this form (<https://www.cognitofrms.com/CityOfJerseyCity1/CommunityGardenCompostForm>).

While significant gaps do exist in data collection, particularly from the backyard program, these data indicates a sharp increase in the overall volume of composted material, rising from 137 pounds in the week of June 30th to 689 pounds in the week of September 29th.

View the visualization here:

<https://public.tableau.com/profile/jersey.city#!/vizhome/2019Composting/Story1>

Outreach Materials

The City has circulated updated composting and recycling educational materials to improve awareness of proper waste disposal procedures and the benefits of recycling and composting. Moving forward, the City should continue to address awareness needs and implement best practices to improve waste disposal. For example, waste disposal in City buildings could be improved with clearly marked and separated recyclables (one for comingle containers, one for paper & cardboard) and another for food waste. Additionally, the City could more widely spread awareness of recycling and composting procedures through a streamlined and ongoing information campaign.

View new recycling and composting outreach materials here:

Composting: https://jcmakeitgreen.org/wp-content/uploads/2019/05/OoS_Flyer_Composting_5.2.19.pdf

Recycling: <https://jcmakeitgreen.org/wp-content/uploads/2018/09/oos-flyer-recycling.pdf>

Additional printed materials (recycling coloring book, I ♥ composting in JC stickers) can be provided upon request.

Conclusion

Over 2019, waste management initiatives have improved the overall collection of recycling and compost, as well as awareness of waste management procedures. However, institutional inertia and interdepartmental coordination challenges, along with broader infrastructural issues, have limited the scope of these efforts.

Moving forward, the City should expand the initiatives which proved successful by targeting pilot programs toward institutional partners (such the JC Board of Education or the Jersey City Housing Authority) and implement new policies (such as regulation of compost and recycling at City events and buildings) to improve waste disposal progress.